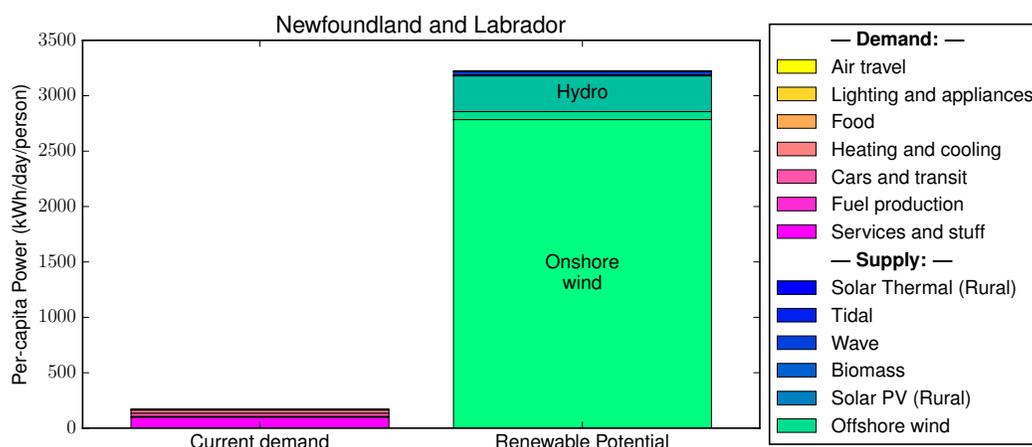


Renewable energy scenario for Newfoundland & Labrador

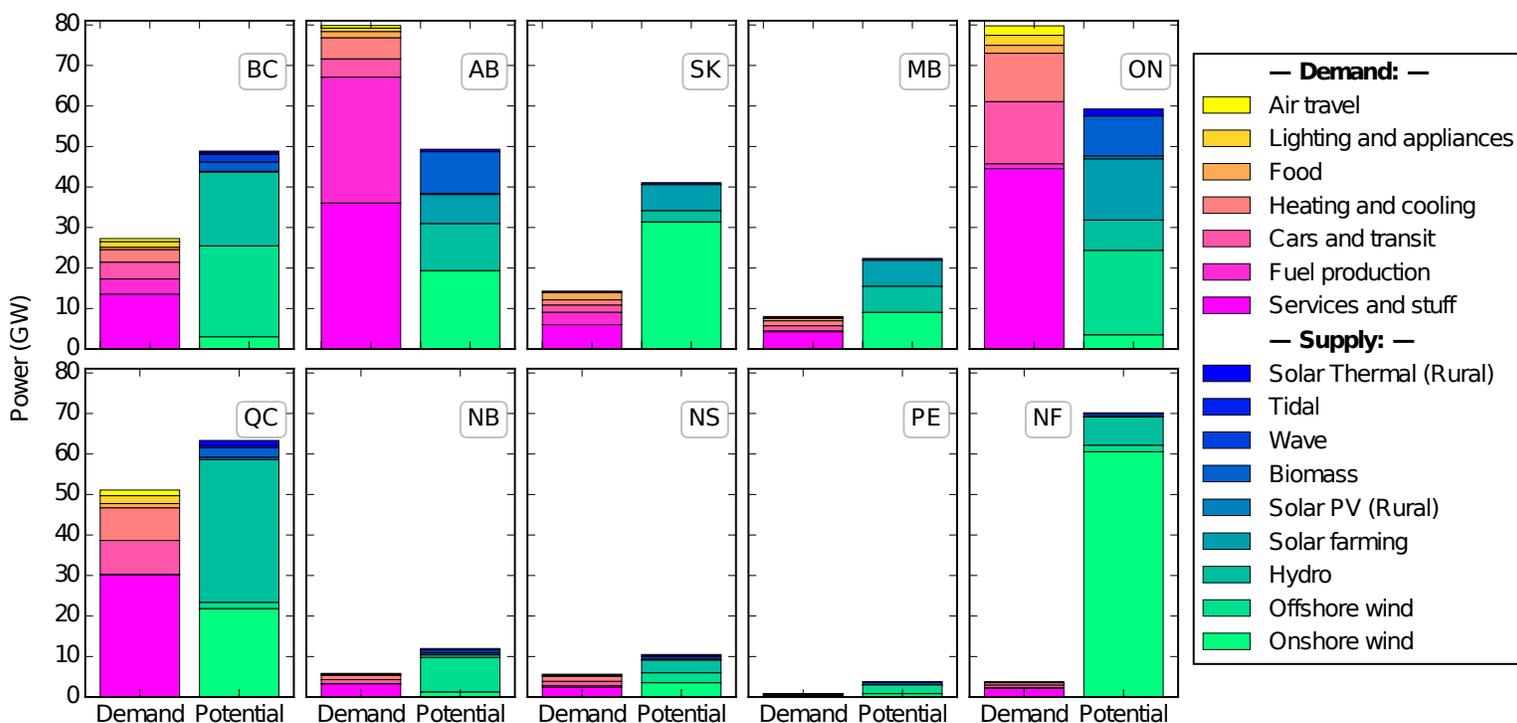
This snapshot is based on “[The renewable energy landscape in Canada: a spatial analysis,](#)” *Renewable & Sustainable Energy Reviews* (2016), doi:10.1016/j.rser.2016.11.061. Our project assembles all sources of energy use into familiar household categories, and it identifies feasible sites for renewable energy generation across Canada. CONTACT: [C. BARRINGTON-LEIGH, MCGILL UNIVERSITY](#)

The onshore wind potential for Newfoundland and Labrador, shown in below, is remarkable by any measure. In per capita terms, it dwarfs the province’s own needs and at current energy prices could generate \$200,000 per household of annual revenue if a market existed for it.¹ In absolute terms, our estimate of Newfoundland and Labrador’s renewable energy potential is the largest in the country. Although it includes some hydroelectricity and a dispersed wind catchment area, both of which would help with reliability of power, the resource would clearly be developed only if it was exportable. This might involve new transmission systems such as a direct-current link connecting to Quebec and U.S.A markets. In addition, while we have sited high-potential wind areas only near existing roads and transmission lines, clearly the nature of the transmission infrastructure to these locations would need to change drastically for the exploitation of new energy resources on the scale of those envisioned here for Newfoundland and Labrador, as well as for other provinces. For very large developments, new roads and population centres may be developed to suit the location of the wind, rather than vice versa, in which case the geography of our analysis may be taken as only representative.



The stack on the left shows the sum of all energy currently consumed, as both electricity and combustion, in Newfoundland & Labrador. On the right is a breakdown of available renewable energy resources.

For maps, methods, sources, and more detailed discussion, see our [full paper](#). We do not carry out an economic analysis, but our criteria for generation siting relate also to economic feasibility. Overall, our analysis shows that all but two provinces in Canada have sufficient renewable energy potential to meet the entire current energy demand.



¹The average household size in Newfoundland and Labrador is 2.4. At a domestic energy price of \$0.10/kWh, the value of 3000 kWh/day would be, annually, ~ \$110k per individual.